

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF NEBRASKA

FRANCO RIBEIRO and DEANNA RIBEIRO, as individuals and as next friends and biological parents of LUCAS RIBEIRO, an infant, Plaintiffs, vs. BABY TREND, INC.; MARK SEDLACK; MILLENIUM DEVELOPMENT CORP.; INDIANA MILLS & MANUFACTURING INC.; LERADO GROUP CO., LTD.; LERADO GROUP (HOLDING) COMPANY LTD.; LERADO (ZHONG SHAN) INDUSTRIAL CO., LTD.; LERADO CHINA LIMITED; LERADO H.K. LIMITED; and HOLMBERGS SAFETY SYSTEM HOLDING AB f/k/a HOLMBERGS CHILDSAFETY AB, HOLMBERGS CHILDSAFETY AB f/k/a KENDRION HOLMBERGS AB D/B/A HOLMBERGS, HOLMBERGS SAFETY SYSTEM HOLDING AB f/k/a HOLMBERGS CHILDSAFETY HOLDING AB d/b/a HOLMBERGS, GNOSJÖGRUPPEN AB f/k/a KENDRION AUTOMOTIVE METALS AB d/b/a HOLMBERGS, HOLMBERGS SAFETY SYSTEM HOLDING AB, GNOTECH REFTELE AB, MAXI MILIAAN B.V., and DOREL INDUSTRIES, INC. Defendants.	CASE NO. 8:12cv204 DEFENDANTS' BRIEF IN SUPPORT OF THEIR JOINT RESPONSE TO PLAINTIFFS' DAUBERT MOTION TO EXCLUDE THE TESTIMONY OF WILLIAM VAN ARSDELL, Ph.D.
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COME NOW Defendants, Indiana Mills & Manufacturing, Inc.; Lerado Group Co., Ltd.,; Lerado Group (Holding) Company, Ltd.; Lerado (Zhong Shan) Industrial Co., Ltd.; Lerado China Limited; Lerado H.K. Limited (collectively "The Lerado Defendants"); (all Defendants

supporting this motion hereinafter collectively “Defendants”), and for their Response to Plaintiffs’ *Daubert* Motion Excluding the Testimony of William Van Arsdell. Ph. D., state as follows:

I. INTRODUCTION

On February 28, 2017 Defendants disclosed William Van Arsdell, Ph. D. (“Dr. Van Arsdell”), as an expert witness. (CM/ECF Filing No. 713-2). Dr. Van Arsdell has three degrees, a Bachelor of Science (B.S.), a Master of Science (M.S.) and a Doctor of Philosophy (Ph. D.) in mechanical engineering (CM/ECF Filing No. 704-3 at 45). Dr. Van Arsdell has extensive experience evaluating the performance of child restraint systems (“CRS”), including over twenty years of involvement. (CM/ECF Filing No. 704-7 at 116:1-4).

Plaintiffs’ counsel has dramatically misrepresented Dr. Van Arsdell’s work in this case. Plaintiffs’ counsel, at Dr. Van Arsdell’s deposition, and in their Brief in Support of Their *Daubert* Motion to Exclude his testimony (“*Daubert Motion*”), attempted to paint the picture that he did not participate in the surrogate study at all, and that he did not document or record any findings from the study. As will be explained herein, this is a gross mischaracterization. In fact, over twenty times during Dr. Van Arsdell’s deposition he offered to explain his answer, however, Plaintiffs’ counsel consistently prevented Dr. Van Arsdell from giving his full opinions. (*See generally* CM/ECF Filing No. 704-7). Plaintiffs’ counsel conducted Dr. Van Arsdell’s deposition for the sole purpose of eliciting information for a *Daubert* Motion and potential impeachment at trial. *See Knighton v. Villian & Fassio e Compagnia Internazionale di Genova Societe Riuniti di Navigazione, S.p.a.*, 39 F.R.D. 11, 13-14 (D. Md. 1965). Due to the unprofessional manner in which the deposition was held, Dr. Van Arsdell was required to draft

an affidavit to fully articulate his opinions. (*See* Dr. William Van Arsdell Aff., attached hereto as Ex. 1).

Plaintiffs' *Daubert* Motion focuses on one overarching point and then three specific points, in the alternative. Plaintiffs argue that Dr. Van Arsdell's methodology of testing was not scientific or reliable. Plaintiffs further argue that Dr. Van Arsdell should be barred from specifically testifying to the surrogate study, the curvature of the subject CRS's base, his opinion that the crotch buckle was likely unfastened at the time of the incident, and any human factors issues. For the reasons stated herein, Plaintiffs' *Daubert* Motion must be denied.

II. LEGAL STANDARD

The admissibility of expert testimony is governed by Rule 702 of the Federal Rules of Evidence and the Supreme Court's seminal case, *Daubert v. Merrell Dow Pharmas., Inc.*, 509 U.S. 579 (1993). Rule 702 of the Federal Rules of Evidence states:

A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if:

- (a) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue;
- (b) the testimony is based on sufficient facts or data;
- (c) the testimony is the product of reliable principles and methods; and
- (d) the expert has reliably applied the principles and methods to the facts of the case.

See Fed R. Evid. 702.

Rule 702 "assign[s] to the trial judge the task of ensuring that an expert's testimony both rests on a reliable foundation and is relevant to the task at hand." *Daubert v. Merrell Dow*

Pharms., Inc., 509 U.S. 579, 597 (1993); See also *Kumho Tire Co. v. Carmichael*, 526 U.S. 137 (1999); *Bland v. Verizon Wireless, L.L.C.*, 538 F.3d 893 (8th Cir. 2008). However, the rule is generally one of admissibility rather than exclusion. *Lauzon v. Senco Prods., Inc.*, 270 F.3d 681, 686 (8th Cir. 2001).

While it is contemplated that a party will be entitled to obtain full disclosure of an expert's opinion and the facts and reasons upon which it is based, it is not contemplated that a party will be allowed, by deposition or otherwise, to conduct a preliminary cross-examination of his opponents' experts for the purpose of developing material to be used for impeachment.

Knighton, 39 F.R.D. at 13-14.

An expert may rely on otherwise inadmissible hearsay evidence in forming his opinion if the facts and data upon which he relies are of a type reasonably relied upon by experts in his field. *Brennan v. Reinhart Institutional Foods*, 211 F.3d 449, 450 (8th Cir. 2000); Fed. R. Evid. 703. “Rule 703 expressly authorizes the admission of expert opinion that is based on “facts or data” that themselves are inadmissible, as long as the evidence relied upon is ‘of a type reasonably relied upon by experts in the particular field in forming opinions.’” *Monsanto Co. v. David*, 516 F.3d 1009, 1016 (Fed. Cir. 2008) (quoting Fed. R. Evid. 703). Once admitted, the burden falls on opposing counsel’s cross-examination to explore and expose any weaknesses in the expert’s opinion. *Brennan*, 211 F.3d at 451. “A trial court should exclude an expert opinion only if it is so fundamentally unsupported that it cannot help the fact finder[;] [a]ny weakness in the factual underpinnings of [the expert’s] opinion go to the weight and credibility of his testimony, not to its admissibility.” *South Cent. Petroleum, Inc. v. Long Bros. Oil Co.*, 974 F.2d 1015, 1019 (8th Cir. 1992).

III. ARGUMENT

A. Dr. Van Arsdell Has the Qualifications by Virtue of Knowledge, Skill, Experience, Training, and Education to Testify as an Expert Witness

Dr. Van Arsdell is an extremely qualified expert witness as he has extensive experience, education, training, knowledge, and skill pertaining to CRSs. As stated above, Dr. Van Arsdell has three separate degrees in mechanical engineering. He has a B.S. degree in mechanical engineering from the University of Arizona, which he received in 1989; a M.S. degree in mechanical engineering from the University of Illinois at Urbana-Champaign, which he received in 1993; and he received Ph. D. in mechanical engineering from the Massachusetts Institute of Technology in 1997. (CM/ECF Filing No. 704-3 at 45; *see also* Ex. 1 at ¶¶ 2-3).

In addition to Dr. Van Arsdell's extensive educational qualifications, he is a registered professional engineer (mechanical). (CM/ECF Filing No. 704-3 at 45). He also is a certified National Highway Traffic Safety Administration (NHTSA) Child Passenger Safety (CPS) Technician. (*Id.*; *see also* CM/ECF Filing No. 704-7 at 107:4-16). For the past twelve years he has been continually certified as a CPS technician and is familiar with NHTSA's evolving curriculum and publications. (Ex. 1 at ¶ 7). He is trained to examine a CRS in the various protocols to make certain it is safe for use. (CM/ECF Filing No. 704-7 at 107:17-20).

Furthermore, Dr. Van Arsdell has over twenty years of experience pertaining to CRSs. (*Id.* at 116:1-4). Prior to founding Engineering Principles, Dr. Van Arsdell worked at Exponent for more than 10 years and at General Motors (GM) Corporation. (CM/ECF Filing No. 704-3 at 45; Ex. 1. at ¶ 8). He has worked on non-litigation projects including consulting with child restraint manufacturers on new designs, new testing protocols, warnings and instructions, and improving the performance of the CRS. (Ex. 1 at ¶¶ 5-6). He worked as a Test Engineer at Exponent's Test and Engineering Center, where his work included running crash test, sled tests,

and laboratory tests on vehicles, seat belts and CRSs. (*Id.* at ¶9). Additionally, as a graduate student, he taught an undergraduate laboratory class on design, mechanics and materials at the University of Illinois at Urbana-Champaign and has been a guest lecturer at Olin College, a specialized engineering school in Massachusetts. (*Id.* at ¶ 11; CM/ECF Filing No. 704-3 at 45),

Moreover, Dr. Van Arsdell has written extensively about CRSs. (*Id.* at 46–47; Ex. 1 at ¶ 10). In fact, four of Dr. Van Arsdell’s publications relate directly to CRSs, and the Federal Motor Vehicle Safety Standard (FMVSS) applicable to CRSs, FMVSS 213. (Ex. 1 at ¶ 10, and Ex. D attached thereto). One of his peer-reviewed papers directly relates to partial engagement (or “false latching”) of automotive buckles, and the evolution of FMVSS. (Ex. 1 at ¶ 10, and Ex. AG attached thereto).

Clearly, Dr. Van Arsdell is qualified to testify as an expert by virtue of his knowledge, skill, experience, training, and education.

B. Dr. Van Arsdell Should Not be Precluded from Testifying as His Methodology was Both Scientific and Reliable

Dr. Van Arsdell should not be precluded from testifying at trial as his methodology was scientific and reliable. Plaintiffs argue that Dr. Van Arsdell did not conduct any rocking studies, and, therefore, he should be barred from testifying all together. This cannot be the case.

Dr. Van Arsdell conducted a copious amount of testing in this case. Dr. Van Arsdell tested the subject CRS and the allegedly defective crotch buckle at Plaintiffs’ counsel’s office in January of 2017. (CM/ECF Filing No. 598-11). He also conducted testing with the exemplar CRS and exemplar crotch buckle, which showed that there was no false latching or “partial engagement.” (*See* Ex. K to Ex. 1). To claim that this testimony would “not relate to any issue in the case,” or is “non-helpful” to the trier of fact is simply incorrect. (CM/ECF Filing No. 721 at 5). Plaintiffs entire case is based around an allegedly defective crotch buckle. To test the

subject crotch buckle, and exemplar crotch buckles, and find that partial engagement is not possible is directly related to the main issue in the Plaintiffs' case, and will help the trier of fact. This testimony "fit[s]" the facts of the case, no matter how hard Plaintiffs try to make it seem like it does not. *Daubert*, 509 U.S. at 591.

Dr. Van Arsdell properly investigated the rocking ability of the subject CRS. In *Lindner v. Ford Motor Company*, the court allowed the expert to use photographs as empirical evidence, as opposed to examining the subject vehicle, and found that his causation theory was sufficiently grounded in evidence. *Lindner v. Ford Motor Company*, 585 Fed. Appx. 525, 526 (9th Cir. 2014). The court found that the expert "testified during his deposition, his opinion was based on his observation of the empirical evidence: 'the release handle of that [child car] seat' was 'exposed to the passenger front seat,' and the 'passenger front seat . . . was also deformed and slightly inclined.'" *Id.*

In *Lindner*, the expert at issue, Dr. Arthur Hoffmann, Plaintiffs' design/engineering expert in this case, relied strictly on photographs as his empirical evidence to determine that the release handle of the CRS was exposed to the passenger front seat and that the passenger front seat was deformed and slightly inclined. *Id.* Dr. Hoffmann never inspected the subject vehicle; instead, his inspection of the vehicle was done entirely through photographs. (See Arthur Hoffmann Linder Case Summary Expert Report, attached hereto as Ex. 2). Under the "Evidence" section, Dr. Hoffmann listed both "At Scene" and "Vehicle Inspection" as photo evidence. (*Id.*). Thus, his opinion that the passenger front seat was deformed and slightly inclined must have come from photographic evidence alone. Similarly, in the present case, Dr. Van Arsdell's empirical evidence for the rocking ability included photographs taken of the subject CRS, compared with photos of other exemplar CRSs. It also included other visual

inspections of the CRS and exemplar CRSs. Under *Lindner*, that is enough to qualify as empirical evidence, upon which Dr. Van Arsdell can rely to form his opinion, the rest goes to the weight the jury decides to give. *South Cent. Petroleum, Inc.*, 974 F.2d at 1019; *see also Karahodzic v. JBS Carriers Inc.*, No. 12-CV-1040-DRH 2015 WL 11181973, at *9 (S.D. Ill. Apr. 27, 2015) (allowing expert to use post accident photographs, “The Court concludes defendants’ criticism of [the expert’s] inferences and conclusions are proper subject for defendants’ own expert testimony and for cross-examination before [the] jury.”) (emphasis added); *Ponzini v. Monroe County*, No. 3:11-CV-00413 2016 WL 4494094, at * 1 (M.D. Penn. August 24, 2016) (allowing photographs to be introduced in part because they were “relied on by multiple expert witnesses in forming their opinions”).

In forming his opinions, Dr. Van Arsdell employed generally accepted methodologies based on logical scientific and engineering analysis, which are fundamentally the same methodologies that are used by all mechanical engineers to investigate issues similar to those involved in this case. (Ex. 1 at ¶ 12). These methodologies are used by engineers of all types as they conduct any type of investigation or research. (*Id.*). Professors and graduate students use these methodologies at institutions such as MIT; engineers use these methodologies while working for organizations such as GM or NHTSA; and Dr. Van Arsdell has used these same methodologies during his work at MIT, the University of Illinois, GM, and Exponent’s Test and Engineering Center. (*Id.*)

Finally, Dr. Van Arsdell considered extensive published and peer-reviewed literature, including his own publications, that deals with issues related to this case. (*Id.*) He relied on his knowledge and experience obtained through interactions with hundreds of different CRSs. (*Id.*) He also studied and factored in data and other relevant technical documents that are available

from NHTSA. (*Id.*). The methodology Dr. Van Arsdell used in this case is the same as those used by NHTSA sponsored researchers and investigators as they study real world motor vehicle accidents. (*Id.*)

For the foregoing reasons, Dr. Van Arsdell conducted the appropriate testing, his methodology was scientific, reliable, and was explicitly confirmed in prior court cases. Thus, Dr. Van Arsdell should not be excluded from testifying.

C. The Court Should Not Preclude Dr. Van Arsdell from Testifying as to the Four Specific Topics Addressed in Plaintiffs' Motion Because His Testimony Complies with Rule 702 and *Daubert*

1. Dr. Van Arsdell Should be Excluded from Testifying Regarding the Surrogate Study as He Participated in the Study

Plaintiffs claim in their *Daubert* Motion, that Dr. Van Arsdell should be barred from testifying regarding the surrogate study for three reasons: (1) he lacked sufficient facts or data, (2) there is no evidence that his testimony is the product of reliable principles and methods, and (3) that his testimony is based on hearsay. (CM/ECF Filing No. 721 at 7–8). All three arguments are without merit, and thus, Dr. Van Arsdell should not be excluded from testifying.

(i) *Dr. Van Arsdell's testimony is based on sufficient facts and data.*

Dr. Van Arsdell, along with his managing engineer Paul Webber, participated in the surrogate study, and therefore, Dr. Van Arsdell should not be excluded from testifying as to the findings from said study.

Plaintiffs argue that Dr. Van Arsdell “neither participated in this study nor recorded any information observed at the surrogate study.” (*Id.* at 6–7). This argument is misleading. First and foremost, it must be noted that unlike Plaintiffs’ expert’s alleged testing, there were over one hundred photographs taken to document the measurements of the children, as well as the overall findings of the study. (Ex. 1 at ¶ 16, and Ex. M attached thereto).

Plaintiffs claim that Dr. Van Arsdell's testimony will not be based on sufficient facts for several reasons. Two of these reasons are intertwined. Plaintiffs claim that Dr. Van Arsdell lacks sufficient facts or data because he himself was not present for the surrogate study; instead his most experienced employee, and managing engineer, Paul Webber attended the study on behalf of Dr. Van Arsdell. (CM/ECF Filing No. 704-7 at 35:9-16; 150:14-17). Plaintiffs also claim that Dr. Van Arsdell lacks sufficient facts or data because Mr. Weber made an oral report to him. Both of these "reasons" are without merit. Mr. Weber is an extremely qualified mechanical engineer. He graduated from engineering school and went to work for the auto industry, primarily on issues related to occupant protect systems, or seat belts. (*Id.* at 35:17-24). Mr. Weber has over 30 years of experience in the industry, and Dr. Van Arsdell and Mr. Weber have worked together for over a decade at Engineering Principles examining CRSs; they have conducted hundreds of surrogate studies together, and Dr. Van Arsdell routinely relies on the reporting from Mr. Weber to conduct his analysis. (Ex. 1 at ¶¶ 20, 22, 24).

It is settled law that an expert "need not have obtained the basis for his opinion from personal perception." *Monsanto Co.*, 516 F.3d at 1015 (citing *Sweet v. United States*, 687 F.2d 246, 249 (8th Cir. 1982). "Numerous courts have held that reliance on scientific test results prepared by others may constitute the type of evidence that is reasonably relied upon by experts for purposes of Rule of Evidence 703." *Id.*; see also *Ratliff v. Schiber Truck Co., Inc.*, 150 F.3d 949, 955 (8th Cir. 1998) (holding that expert testimony regarding a report prepared by a third party was properly allowed, and specifically finding that whether the report author "was an expert is not the relevant injury. What is relevant is whether [the author's] report is a document of the type reasonably relied upon by accident reconstructionists in forming their opinions.").

Additionally, an expert witness can rely on and base his opinion upon hearsay, if the hearsay is something that would be reasonably relied on by experts in the field. *Brennan*, 211 F.3d at 450.

Clearly, experts in the field would rely on the information that was obtained via the surrogate study. The surrogate study was a joint study conducted between Dr. Michael Prange, Dr. Christine Wood's office, and Dr. William Van Arsdell's office. (Ex. 1 at ¶¶18-25, and Ex. O attached thereto). Plaintiffs contend that because Mr. Weber did not take any pictures, record any videos, or taken any notes there are not sufficient facts or data. This is entirely misleading. As stated above, there were over one hundred photos taken at this joint surrogate study. (Ex. M to Ex. 1). While the photos may not have physically been taken by Mr. Weber, they were taken by Dr. Prange's office as part the study. (Ex. 1 at ¶18, and Ex. M attached thereto at 90:2-7). It is common during a joint study that there is only one set of photographs taken. (Ex. 1 at ¶¶ 17-18). These photographs documented the surrogate study, as well as the measurements that were taken during said study. (Ex. O to Ex. 1 at 90:25, 91:1-2). They also documented the height and weight of the children. (*Id.* at 106:14-25; *see also* CM/ECF Filing No. 704-7 at 34:3-11). Photographs are the primary form of documentation of surrogate studies; as such, this is a generally accepted methodology for restraint and biomechanical experts who conduct these studies. (Ex. 1 at ¶ 17).

Plaintiffs attempt to muddy the waters surrounding the surrogate study by arguing that Dr. Van Arsdell does not have sufficient facts because he does not know the age or identity of the surrogate children. As Dr. Prange testified to numerous times, the names of the parents and children are entirely irrelevant information. (Ex. O to Ex. 1 at 83:7-13, 83:20-21, 86:11-17, 88:5-9, 108:20-25). In fact, the Institutional Review Board sets rules for protecting the privacy of the volunteer. (*Id.* at 83:7-14). However, for the second time in this case, Plaintiffs want

Defendants to set aside the fundamental right of privacy and violate federal regulations by providing this information. (*See* CM/ECF Filing No. 589 at 4-10). As will be explained below, the identity of these children was completely irrelevant; what was important was whether the children could properly be restrained in the CRS. (Ex. O to Ex. 1 at 92:10-25, 93:1-25, 94:1-20; Ex. 1 at ¶ 16).

Plaintiffs also claim that because there was no testing performed with the crotch buckle unfastened, Dr. Van Arsdell has not relied on sufficient facts or data. As alluded to above, this was not the purpose of the surrogate study. The purpose of the study was to determine whether or not Lucas Ribeiro *could have been* properly restrained, and whether Lucas was properly restrained at the time of the incident. (Ex. O to Ex. 1 at 112:21-24; CM/ECF Filing No. 704-7 at 44:11-22, 45:7-14; Ex 1 at ¶ 16, 23). In fact, Dr. Van Arsdell refers numerous times to this as a “fit study.” (CM/ECF Filing No. 704-7 at 55:10-11). The study also evaluated the adjustment of the harness and headrest as found at the time of the April 2016 inspection of the subject CRS. (*Id.* at 45:7-14; Ex. A at ¶ 16, 23).

Dr. Van Arsdell relied on an exceedingly experienced engineer to conduct the surrogate study on behalf of his office, he followed up with Dr. Prange to confirm Mr. Weber’s findings, there were over one hundred photographs taken of the findings and measurements from the study, the surrogate study was performed with an exemplar CRS that was the same model as the subject CRS, and there was no need to conduct testing with the crotch buckle unfastened due to the purpose of the study. Therefore, Dr. Van Arsdell’s opinion was clearly based on sufficient facts and data.

(ii) *Dr. Van Arsdell's testimony is the product of reliable principles and methods*

Plaintiffs claim that Dr. Van Arsdell did not provide the principles or methods underlying the surrogate study. Again, this is misleading. As stated above, Plaintiffs' counsel did not allow Dr. Van Arsdell to explain many of his answers at his deposition; this was one of them. (CM/ECF Filing No. 704-7 49:9-11, 49:22-25, 50:1-2, 50:17-25, 51:1, 51:11-12). On numerous occasions Dr. Van Arsdell offered and attempted to explain his involvement with the surrogate study, and further articulate the “verbal protocol” that he gave to Mr. Weber regarding said study. (*Id.*). However, multiple times Plaintiffs’ counsel outright said “no” do not explain:

Q: Okay, and – but he didn’t take any of the photographs to the best of your knowledge?

A: Well, I’ve already . . . answered that question that I don’t know if he did. He probably did not, but it’s possible that he did. And I’ve offered to explain, and if you’d like me to, I will.

Q: Well, no, no. Listen, this is no mystery to this. I’m just trying to figure out how the information from the surrogate study got to you and ended up in your report.

A: Okay. I’d be happy to explain these things. I was –

Q: Well, no. Let me ask this real quick.

(*Id.* at 50:17-25, 51:1). Mr. Weber and Dr. Van Arsdell have used this type of surrogate study before on many occasions; it is their standard practice to follow a standard methodology for assessing a child’s fit in a CRS. (Ex. 1 at ¶ 17, 20, 22, 24). As stated at length above, Dr. Van Arsdell can rely on the report of Mr. Weber to form his opinions. *See Monsanto Co.*, 516 F.3d at 1015; *Sweet*, 687 F.2d at 249; *Ratliff*, 150 F.3d at 955. Any argument that Plaintiffs have regarding the alleged “elusiveness” of the verbal protocol is their own doing for not allowing Dr. Van Arsdell to explain his answers fully.

Additionally, surrogate fit studies are generally accepted methodologies employed by restraint and biomechanical experts on both the Plaintiff and Defense side. (Ex. 1 at ¶ 17). They have been routinely used in hundreds of cases, and are relied on by NHTSA and CRS technicians. (*Id.* at ¶ 21). Dr. Van Arsdell testified in his deposition that the principles and methods of the surrogate study were to restrain a child similar in height and weight to Lucas. (CM/ECF Filing No. 704-7 at 44:11-22, 45:7-14). Certainly, Dr. Van Arsdell has reliably applied the principles and methods to the facts of the case.

Moreover, Dr. Van Arsdell can rely on the photos from the study to form his opinion. As articulated above, the *Lindner* court found that an expert relying strictly on photos was enough empirical evidence to rely on and formulate a causation opinion. *Lindner*, 585 Fed. Appx. at 526. In the present case, Dr. Van Arsdell's empirical evidence from the surrogate study included photographs taken by Dr. Prange's office. This is enough empirical evidence under *Lindner*. See also *Karahodzic* 2015 WL 11181973 at *9; *Ponzini*, 2016 WL 4494094 at * 1.

(iii) *Dr. Van Arsdell can rely on the alleged hearsay statements of Mr. Weber*

An expert may rely on otherwise inadmissible hearsay evidence in forming his opinion if the facts and data upon which he relies are of a type reasonably relied upon by experts in his field. *Brennan*, 211 F.3d at 450; Fed. R. Evid. 703. As discussed at length above, the surrogate study, and Mr. Weber's findings are facts and data upon which experts in this field would reasonably rely upon when forming their opinions.

Plaintiffs again attempt to mislead the court by stating that Mr. Weber did not prepare any written information, photographs, or videos. Again, there were over one hundred photographs taken at this joint surrogate study. (Ex. M to Ex. 1). There was no video taken because there was no need for a video; this was a static, fit study, as described above, and

therefore, photographs sufficed to capture the measurements and observations needed. (CM/ECF Filing No. 704-7 at 44:11-22). Plaintiffs also argue that they have not had the chance to challenge the findings of the surrogate study. That is simply not true. Plaintiffs have had every opportunity to conduct their own surrogate study. This study is no different than any testing that has been conducted by any experts in this case, in that the other party's experts were not present for any "testing." In fact, the surrogate study gave Plaintiffs a better chance to contest the findings because Defendants' experts produced photos of the study, which were disclosed at Dr. Van Arsdell's deposition, unlike the alleged testing of Plaintiffs' experts. (CM/ECF Filing No 706 at 14-18; CM/ECF Filing No. 709 at 12-15).¹ Plaintiffs' counsel also could have asked Dr. Van Arsdell questions pertaining to the findings from the study at his deposition.

Dr. Van Arsdell reviewed the photographs taken at the study, discussed the study at length with Dr. Prange and Mr. Weber, and formed his own opinions based on the information contained in the photos, and his conversations with Dr. Prange and Mr. Weber. (Ex. 1 at ¶ 24). The opinions contained in his report are his own. (*Id.*). He performed the data analysis based on his experience, including his knowledge of the requirements for proper fit as defined by the curriculum and guidelines for NHTSA trained certified CPS technicians. (*Id.*).

Thus, Dr. Van Arsdell's testimony is based on sufficient facts and data, it is the product of reliable principles and methods, and he can rely on hearsay in forming his opinions because the statements are about facts and data that experts in his field would reasonably rely upon. (*Id.* at ¶ 26). Dr. Van Arsdell's testimony regarding the surrogate study complies with Rule 702.

¹ Dr. Herstein took eight photographs of the subject CRS during their "inspection" at Plaintiffs' counsel's office, however, Plaintiffs' counsel actually handled the CRS. (CM/ECF Filing No. 707-2 at 16:5-10, 107:9-14).

2. Dr. Van Arsdell Should Not be Excluded from Testifying Regarding the Curvature of the Subject CRS's Base Because He Has Sufficient Facts and Data to Render the Opinion

Dr. Van Arsdell should not be excluded from testifying regarding the curvature of the subject CRSs base because he does have sufficient facts and data to render an opinion, and he has the specialized knowledge to qualify as an expert.

First, as discussed at length in Section III (A), Dr. Van Arsdell is extensively qualified in the area of CRSs. He has three separate degrees in mechanical engineering, has over twenty years of experience in the field, and has written extensively on the topic. (*See supra* Sec. III(A); CM/ECF Filing No. 704-3 at 45-47; CM/ECF Filing No. 704-7 at 107:4-20, 116:1-4; Ex. 1 at ¶¶ 2-11, 27). Dr. Van Arsdell thus has the requisite specialized knowledge to qualify as an expert under Rule 702.

Second, Dr. Van Arsdell has sufficient facts and data to render his opinion regarding the curvature of the base. Dr. Van Arsdell's opinion regarding the curvature is simple, the bottom is curved, it is not the same exact curvature as all rear facing infant carriers ("RFICs"), however, every RFIC on the market has a curved base for the purpose of rocking. (CM/ECF Filing No. 704-3 at 11; CM/ECF Filing No. 704-7 at 68:9-20, 70:15-18).

Plaintiffs contend that since Dr. Van Arsdell did not measure any of the exemplar seats or the subject seat's base curvature he should be barred from testifying to that. This argument lacks merit for a few reasons. First of all, at the time of Dr. Van Arsdell's report, all that he had to go off of was Dr. Hoffmann's report and deposition. As noted in Dr. Van Arsdell's report, the measurements that Dr. Hoffmann made were completely irrelevant, there was no basis or comparison that could be made, and the testing itself was unscientific. (CM/ECF Filing No. 704-3 at 11-12). This provided Dr. Van Arsdell with no reason to conduct a study that is not

generally accepted or typically performed: measuring the curvature of the base. (CM/ECF Filing No. 704-7 at 9-20).

Second, if the Court agrees with Plaintiffs that he should have taken measurements, Dr. Van Arsdell still complied with *Lindner* by comparing the subject CRS's base to that of other exemplar CRSs via photographs. As discussed in great detail above, the court in *Lindner* found that an expert, Dr. Hoffmann, relying solely on photographs to form an opinion had adequate empirical evidence (the photographs) to form his opinion. *Lindner*, 585 Fed. Appx. At 526; *see also Karahodzic* 2015 WL 11181973 at *9; *Ponzini*, 2016 WL 4494094 at * 1. Thus, Dr. Van Arsdell's comparison of the subject CRS's curvature to that of other CRS's curvatures was adequate, and provided Dr. Van Arsdell with sufficient facts and data to form his very simple opinion regarding the base. (Ex. 1 at ¶¶ 29-34; CM/ECF Filing No. 704-7 at 70:15-18, 71:2-5; CM/ECF Filing No. 704-3 at 23-29;).

Dr. Van Arsdell has the requisite qualifications, education and experience to provide an expert opinion under Rule 702, and his comparison of the photographs of the exemplar CRS to the subject CRS, was adequate to give his simple opinion regarding the curvature of the base.

3. Dr. Van Arsdell Should Not be Excluded from Testifying Regarding Whether the Buckle on the Subject CRS was Fastened at the Time of the Incident

Dr. Van Ardsell should not be excluded from testifying regarding whether the buckle on the subject CRS was fastened because he adequately explained the basis for his opinion. The alleged lack of explanation was once again the product of the method that Plaintiffs' counsel chose to conduct the deposition of Dr. Van Arsdell.

Plaintiffs, in their *Daubert* Motion, conveniently quote one specific question that was asked of Dr. Van Arsdell. (CM/ECF Filing No. 721 at 10). They fail to further explain that

Plaintiffs' counsel failed to ask any sort of follow up question pertaining to the basis for that opinion. (*See* CM/ECF Filing No. 704-7 at 46:10-25, 47:1-24). Instead, Plaintiffs' counsel went back to focusing on the irrelevant information of the age of the children in the surrogate study, as opposed to eliciting the basis for Dr. Van Arsdell's expert opinion. (*Id.* at 46:25, 47:1-3). Plaintiffs' *Daubert* Motion, also focuses on the fact that the surrogate study failed to contain any testing with the crotch buckle unfastened. However, as noted at length in Section III(C)(1), this was not the purpose of the surrogate study. The purpose was to determine if Lucas Ribeiro could be properly restrained in the seat; having the crotch buckle undone, by its nature, would be contrary to that purpose. (Ex. O to Ex. 1 at 112:21-24; CM/ECF Filing No. 704-7 at 44:11-22, 45:7-14).

Plaintiffs further argue that Dr. Van Arsdell did not consider any scenario other than Deanna Ribeiro likely not fastening the buckle, and that he has no direct knowledge because he was not there "*during* the incident." First of all, not a single person in this entire case, outside of Alex Ribeiro, was present *during* the incident; thus, no one would have direct knowledge. Not even Deanna Ribeiro who was showering, in an entirely separate room, with the door closed, while the incident occurred, was present *during* the incident. (CM/ECF Filing No. 617-2 at 20:23-25, 21:5-6). Thus, no one has direct knowledge of the status of the buckle at the time of the incident.

Second, as stated above, Dr. Van Arsdell was not given the opportunity to explain how he came to his conclusion that the buckle was likely not fastened at the time of the incident. Dr. Van Arsdell, did, in fact, rule out the possibilities that Plaintiffs claim he failed to do. Dr. Van Arsdell tested the subject crotch buckle in January 2017. (CM/ECF Filing No. 598-11; *See* Ex. AB to Ex. 1). In addition to testing the subject buckle, Dr. Van Arsdell tested an exemplar CRS

and its crotch buckle. (Ex. 1 at ¶¶ 35, 37). Dr. Van Arsdell produced the video that was taken during the inspection, as well as the transcript as part of his expert file. (*Id.*). The generally accepted methodology that Dr. Van Arsdell used to form this conclusion was the examination and manipulation of the subject buckle that he performed during his inspection, as well as his examination and manipulation of an exemplar buckle in his laboratory. (*Id.*). This is the same methodology that is the subject of peer reviewed articles and is part of the required FMVSS test that this buckle has been shown to comply with. (*Id.*; *see also* CM/ECF Filing No. 704-6 at 14).

Moreover, this theory that Plaintiffs have recently developed pertaining to a “partially engaged” crotch buckle did not come to light until March 15 at Dr. Herstein’s deposition. Dr. Van Arsdell had disclosed his expert report the day before and did not know of Plaintiffs’ theory of a “partial engagement” until the day after his disclosure. Since this late disclosure, Dr. Van Arsdell and Dr. Prange have conducted subsequent, separate studies of an exemplar CRS and have both come to the conclusion that the partial engagement is not possible. (Ex. K to Ex. 1 at 4-6). In fact, Dr. Van Arsdell stated:

[b]ased on Dr. Prange’s work, my own work, the peer reviewed literature, the applicable FMVSSs, the testing of this buckle by NHTSA and Baby Trend, and the facts of this case, it is clear that Lucas Ribeiro’s harness buckle was not partially engaged (as defined by the literature and FMVSSs) when Deanna Ribeiro left him unattended.

(*Id.* at 6). Dr. Van Arsdell also reviewed the NHTSA database to look for complaints related to this crotch buckle; he found no complaints that this buckle released spontaneously, partially engaged or false latched. (Ex. 1 at ¶ 35). In fact, NHTSA performed testing of the subject crotch buckle and found “there is no false latch; buckles are self-ejecting.” (CM/ECF Filing No. 704-6 at 14). Based on all the foregoing Dr. Van Arsdell came to the conclusion that the buckle was either securely latched or not latched at all; he did not, as Plaintiffs claim, start with the

conclusion that the buckle could not false latch and then look to support his opinion from there. (Ex. 1 at ¶¶ 35-45).

To say that Dr. Van Arsdell failed to “rule out” any other possible explanations is completely misleading; Plaintiffs did not want to hear that he had “ruled out” any other explanation, and then strategically failed to ask him any questions regarding the basis for his opinion that the crotch buckle was likely undone, in order to obtain material for their *Daubert* Motion. Had Dr. Van Arsdell been asked about his process he would have stated that his conclusions were based on the scientific methodology: he poses a hypothesis or question, establishes a basis and methodology to evaluate that specific hypothesis or question, and then arrives at a conclusion based upon that methodology, basis and his knowledge, experience, training and review of the available data. (Ex. 1 at ¶¶ 35-45).

Plaintiffs reliance on the *Glastetter* case is misguided. In the *Glastetter* case, the court found that the experts failed to produce scientifically convincing evidence that the drug caused the disease. *Glastetter v. Novartis Pharmaceutical Corp.*, 252 F.3d 986, 989 (8th Cir. 2001). The experts theorized that the drug might cause the plaintiff’s intracerebral hemorrhage (ICH) because they believed that the drug caused vasoconstriction, which resulted in high blood pressure; high blood pressure is a risk factor of an ICH. *Id.* Therefore, they concluded that the drug caused the ICH. *Id.* However, the reason the court found that the experts did not meet the *Daubert* standard was because their major premise remained unproven and, thus, they failed to produce scientifically convincing evidence that the drug caused vasoconstriction. *Id.* Contrary to Plaintiffs attempt to mislead the Court, the fact that the expert used the word “might” did not in any way affect the court’s ruling. (*Id.*; CM/ECF Filing No. 721 at 12 (emphasis in original)).

In the present case, Dr. Van Arsdell has shown through numerous studies, federal regulations, the passing of multiple tests, and peer reviewed literature that the crotch buckle cannot be partially latched. (Ex. 1 at ¶ 35-45). Clearly, unlike the experts in *Glastetter*, Dr. Van Arsdell's opinion is the product of scientifically convincing evidence. He has demonstrated that his opinion is to an "acceptable degree of [scientific] certainty." *Glastetter*, 252 F.3d at 989.

Plaintiffs' citation of the *Colon* case is just as misguided. As in *Glastetter*, the fact that the expert used less than absolute certainty to state his opinion was not the reason that the court determined the opinion did not meet the standards of Rule 702. *Colon v. Abbot Labs.*, 397 F. Supp. 2d 405, 414 (E.D.N.Y. 2005). The court stated that the expert relied on studies but ignored the problems of bias and inaccuracy associated with the studies; he failed to note that repeated attempts to replicate the findings, including by the senior author of the article, had failed; and he failed to take into account the fact that Sweden had one of the highest incidence rates of type 1 diabetes. *Id.* Those were the reasons that the expert lacked sufficient facts or data, not, as Plaintiffs misconstrue, the fact that he used the words "strong possibility."

Contrary to Plaintiffs erroneous assertions, Dr. Van Arsdell has supported his assertion that the buckle was likely not fastened at the time that Mrs. Ribeiro left Lucas unattended and took her shower. As discussed ad nauseam, Dr. Van Arsdell conducted testing of the subject crotch buckle,² testing of an exemplar crotch buckle, he has relied on and produced extensive amounts of peer-reviewed literature, he has relied on the applicable FMVSS standards, he has relied on the testing of the buckle by NHTSA and Baby Trend, including testing by NHTSA that specifically found "there is no false latch; buckles are self-ejecting," and he has produced videos of testing conducted by himself pertaining to the crotch buckle. (Ex. 1 at ¶¶ 35-45; CM/ECF

² Notably, Plaintiffs experts Terry Stentz and Kelli Herstein, who all of a sudden are attempting to articulate design opinions, have never conducted any testing of the subject buckle, or any testing of any buckle that has been documented.

Filing No. 704-3; CM/ECF Filing No. 598-11; CM/ECF Filing No. 704-6; Ex. AB to Ex. 1) To claim that his opinion “lacks reliability” or is “not based on sufficient facts or data” because he uses the word “likely” instead of absolute certainty is ludicrous.

Plaintiffs fail to cite any authority that states that the expert must articulate an opinion where the basis is more likely than not. For the aforementioned reasons, Dr. Van Arsdell should not be precluded from testifying to the fact that the crotch buckle was likely unlatched at the time of the incident.

4. [Dr. Van Arsdell Should Not be Excluded from Testifying to Human Factors Issues Because There is Overlap Between Engineering and Human Factors](#)

Dr. Van Arsdell should not be precluded from testifying as to human factors issues because there is an overlap between human factors and engineering. When asked what he believed human factors meant, Dr. Van Arsdell explicitly stated that human factors “relates to the work I do on a regular basis.” (CM/ECF Filing No. 704-7 at 29:12-14). Indeed, Plaintiffs quote his definition of human factors in their *Daubert* Motion, but they conveniently leave out the three words that proceed the definition. (CM/ECF Filing No. 721 at 13; CM/ECF Filing No. 704-7 at 29:16-18). In its entirety, Dr. Van Arsdell stated, “I’m sure there are other areas of human factors, but **within my area**, human factors relates to how human[s] interact with the product, how they interact with the instructions and warnings.” (*Id.* at 29:15-18). Dr. Van Arsdell also made clear that he has some expertise in instructions and warnings from an engineering perspective. (*Id.* at 29:21-23; Ex. 1 at 47).

Based on Dr. Van Arsdell’s training and experience as a mechanical engineer, he has expertise in the design, operation, and performance of CRSs, how children and caregivers use child restraints, as well as the engineering content of instructions and warnings. (Ex. 1 at ¶ 48).

Dr. Van Arsdell provided an example of an area of overlap where he has expertise: how a child or care giver uses a CRS and harness buckle. (*Id.* at 48-50).

For the foregoing reasons, Dr. Van Arsdell should be precluded from testifying regarding the overlapping nature of human factors and engineering.

D. The Procedural Nature of This Case Limited Dr. Van Arsdell's Report

Dr. Van Arsdell's report was necessarily limited due to the procedural nature of this case. As stated earlier, at the time of Dr. Van Arsdell's March 14, 2017 disclosure, Dr. Van Arsdell only had the expert reports of Drs. Hoffmann, Stentz and Herstein, along with the deposition of Dr. Hoffmann to base his opinions on. (Ex. 1 at ¶¶ 13-14). The expert reports of the three liability experts, as well as the deposition of Dr. Hoffmann are lacking any sort of reference, whatsoever, to the new theory that the left latch plate of the buckle was inserted and created a "false latch," or partial engagement. (CM/ECF Filing No. 606-1; CM/ECF Filing No. 606-3; CM/ECF Filing No. 617-7). The theory did not come to light until Dr. Herstein's deposition, the day after Dr. Van Arsdell disclosed his opinion, and has subsequently been reiterated by Dr. Sokol's "rebuttal" report. (CM/ECF Filing No. 713-4).

The expedited nature of the case and lack of information available to Dr. Van Arsdell, as has been stated throughout the instant motion, caused his need to issue a supplemental report. (Ex. 1 at ¶14).

IV. CONCLUSION

WHEREFORE, this Honorable Court should not enter an order *in limine* preventing Dr. William Van Arsdell from testifying in general, or limiting him in any way.

Dated this 7th day of April, 2017.

Respectfully submitted,

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PROOF OF SERVICE

The undersigned hereby certifies that a true and correct copy of the foregoing instrument was served upon all parties to the above cause by depositing the same in the U.S. Mail, postage prepaid, to their respective mailing addresses disclosed on the pleadings or, in the event the party is represented by counsel, to their counsel; or notice of the filing of this instrument was sent by e-mail, via CM/ECF, to all parties on the service list who have registered to receive service by e-mail over CM/ECF, on April 7, 2017.

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